

FIG. 3

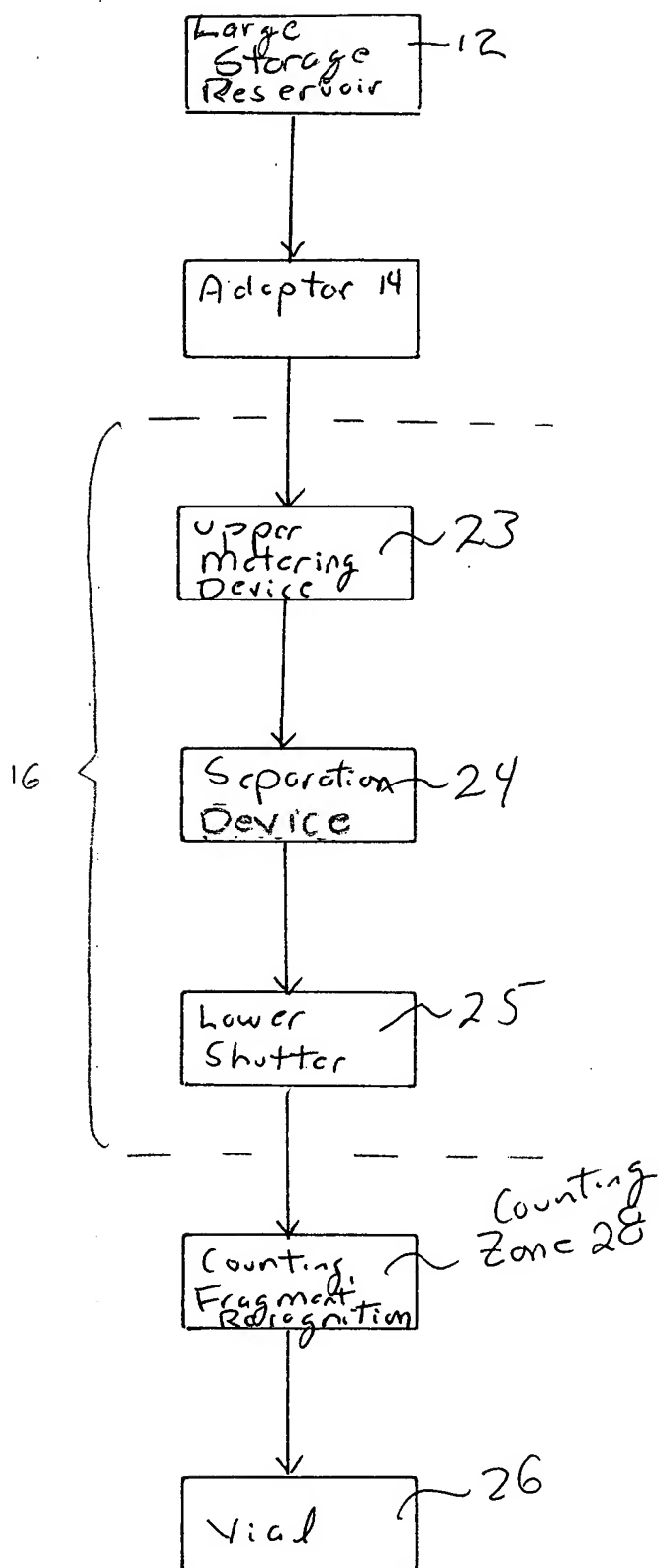


FIG. 4

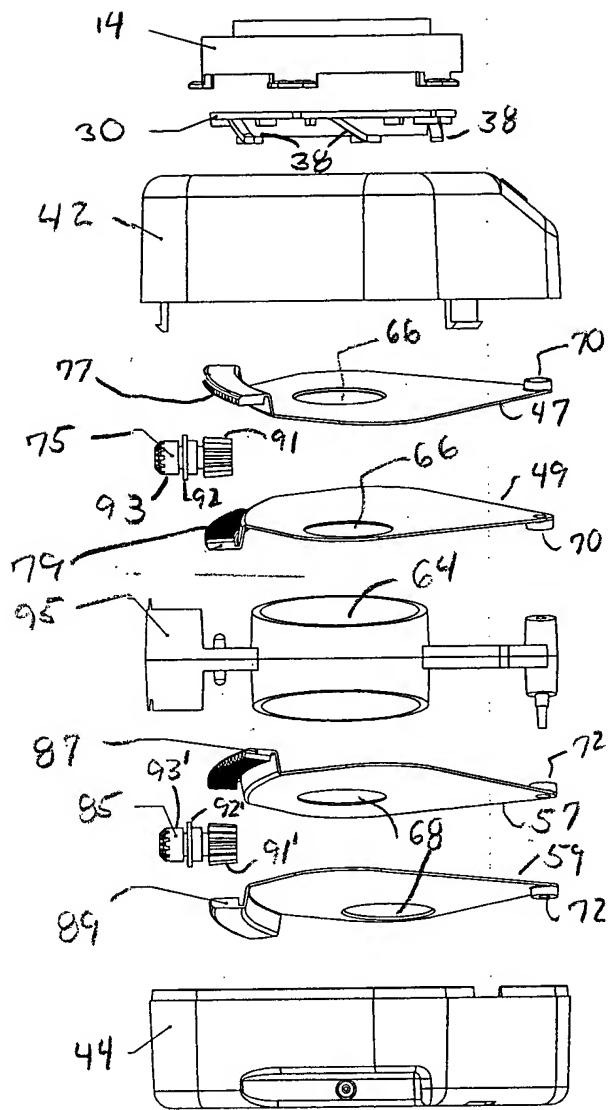


FIG. 5

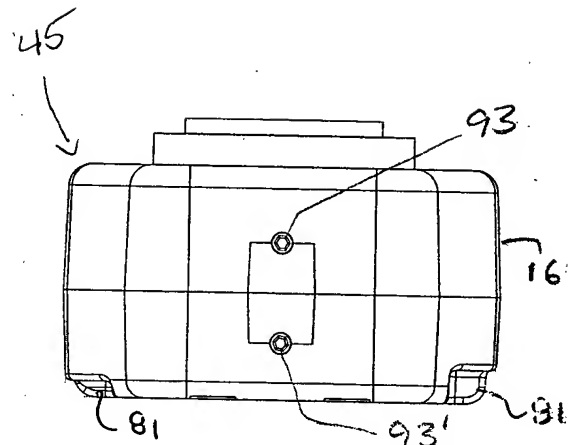


FIG. 6

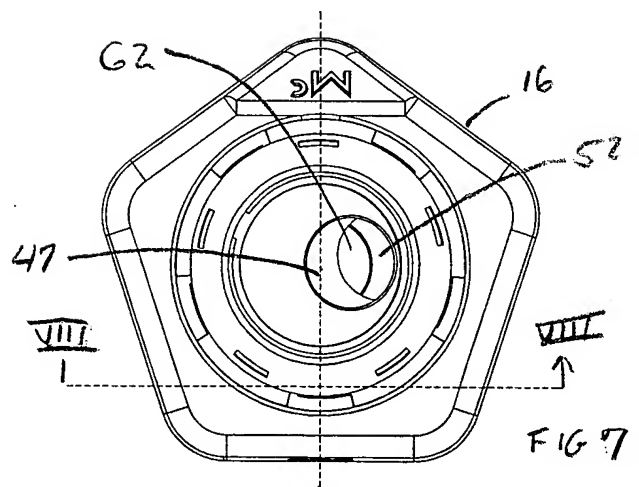


FIG. 7

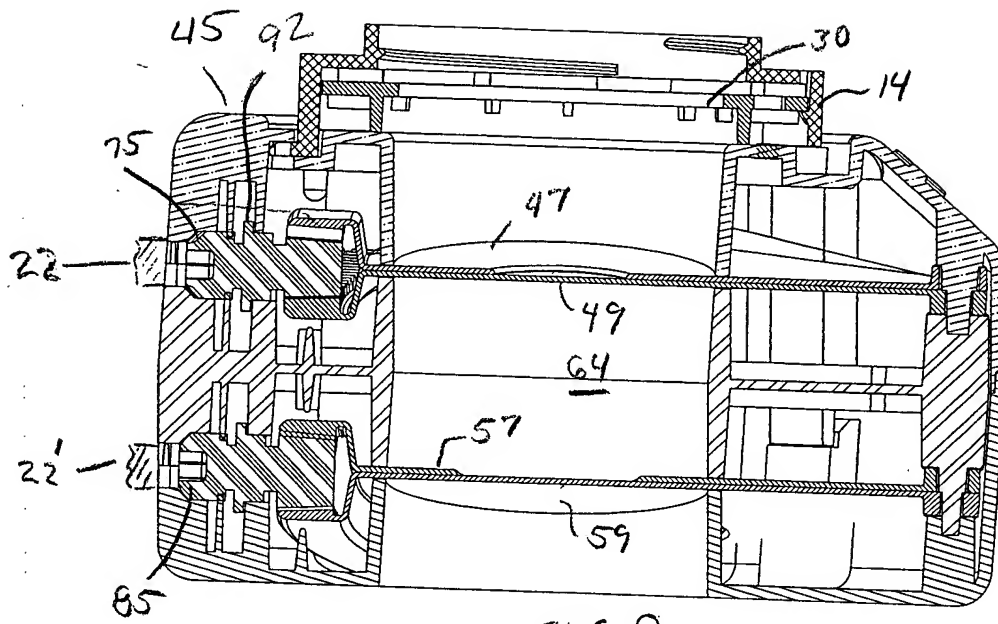


FIG. 8

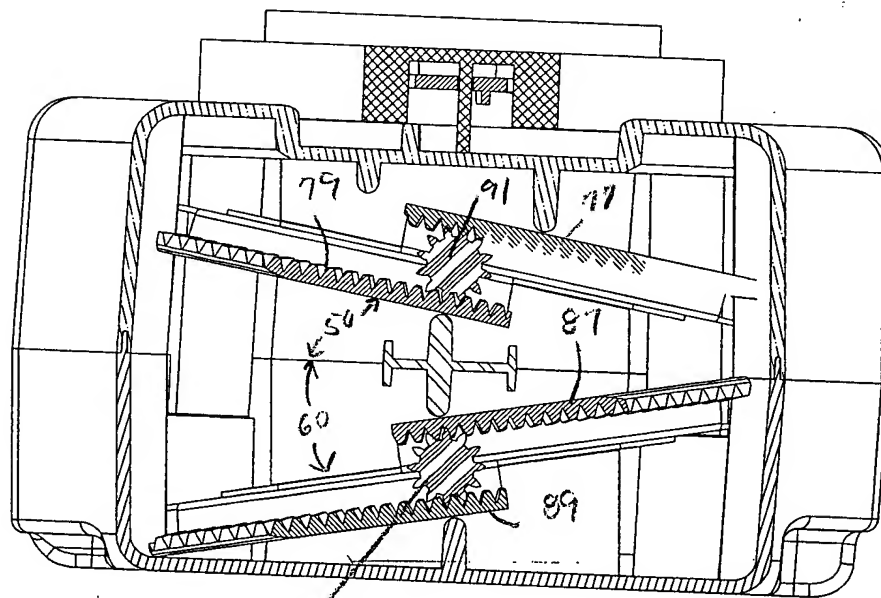


FIG. 9

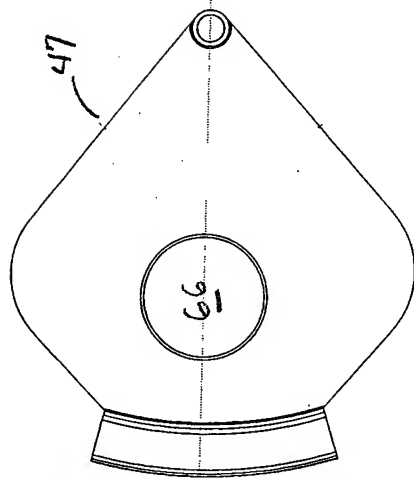


FIG. 10A

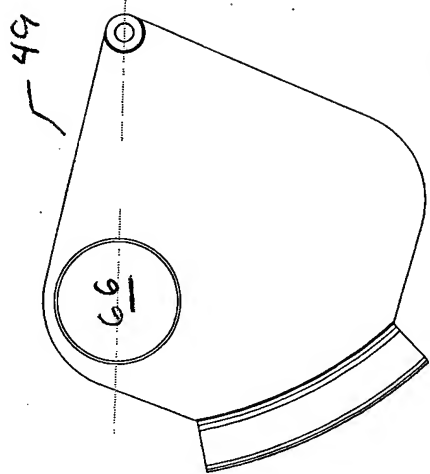


FIG. 10B

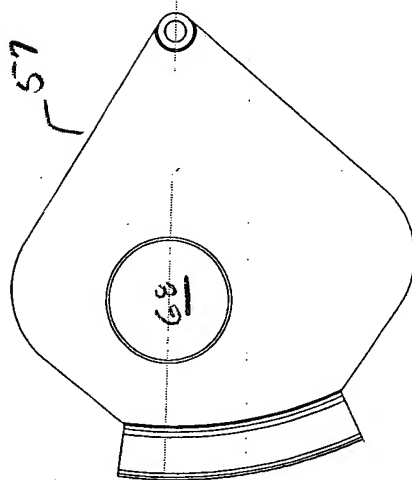


FIG. 10C

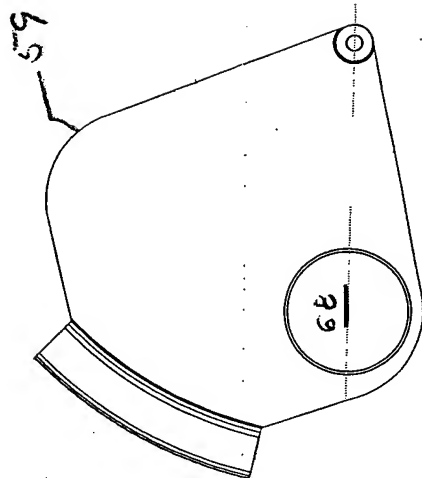


FIG. 10D

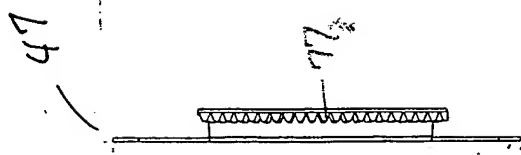


FIG. 11D

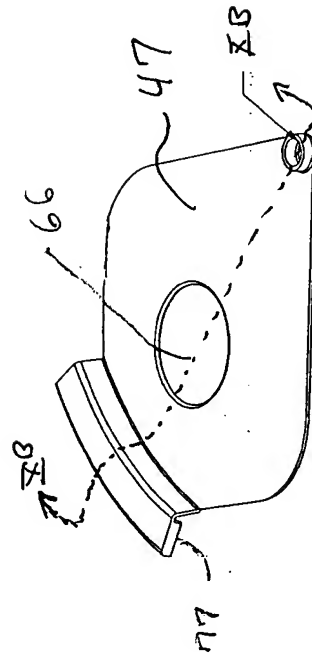


FIG. 11A

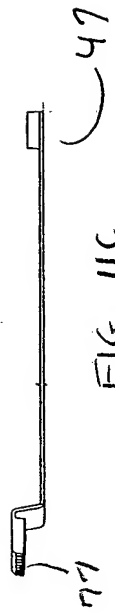


FIG. 11C

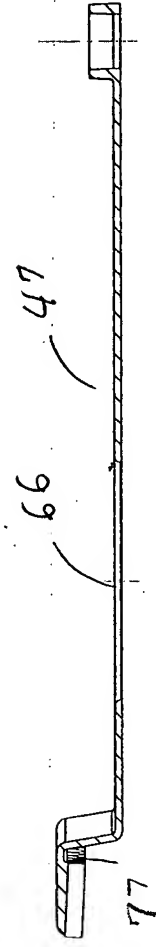
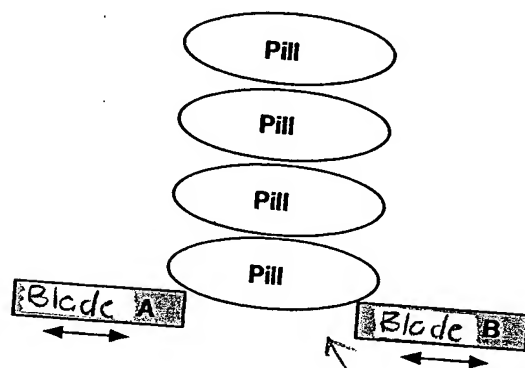
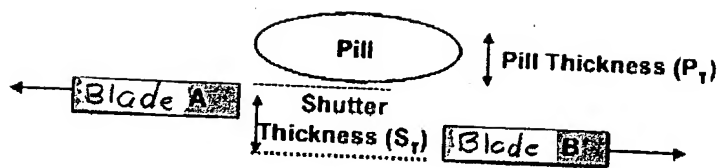
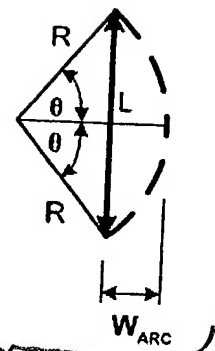
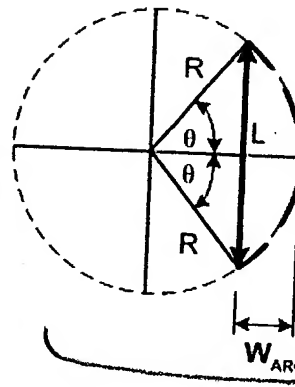
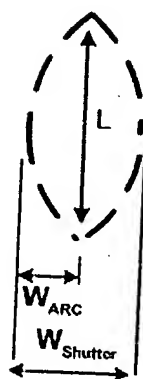
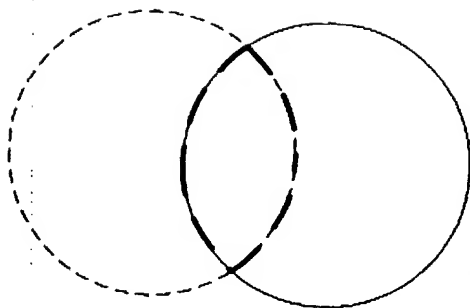


FIG. 11B



shutter opening



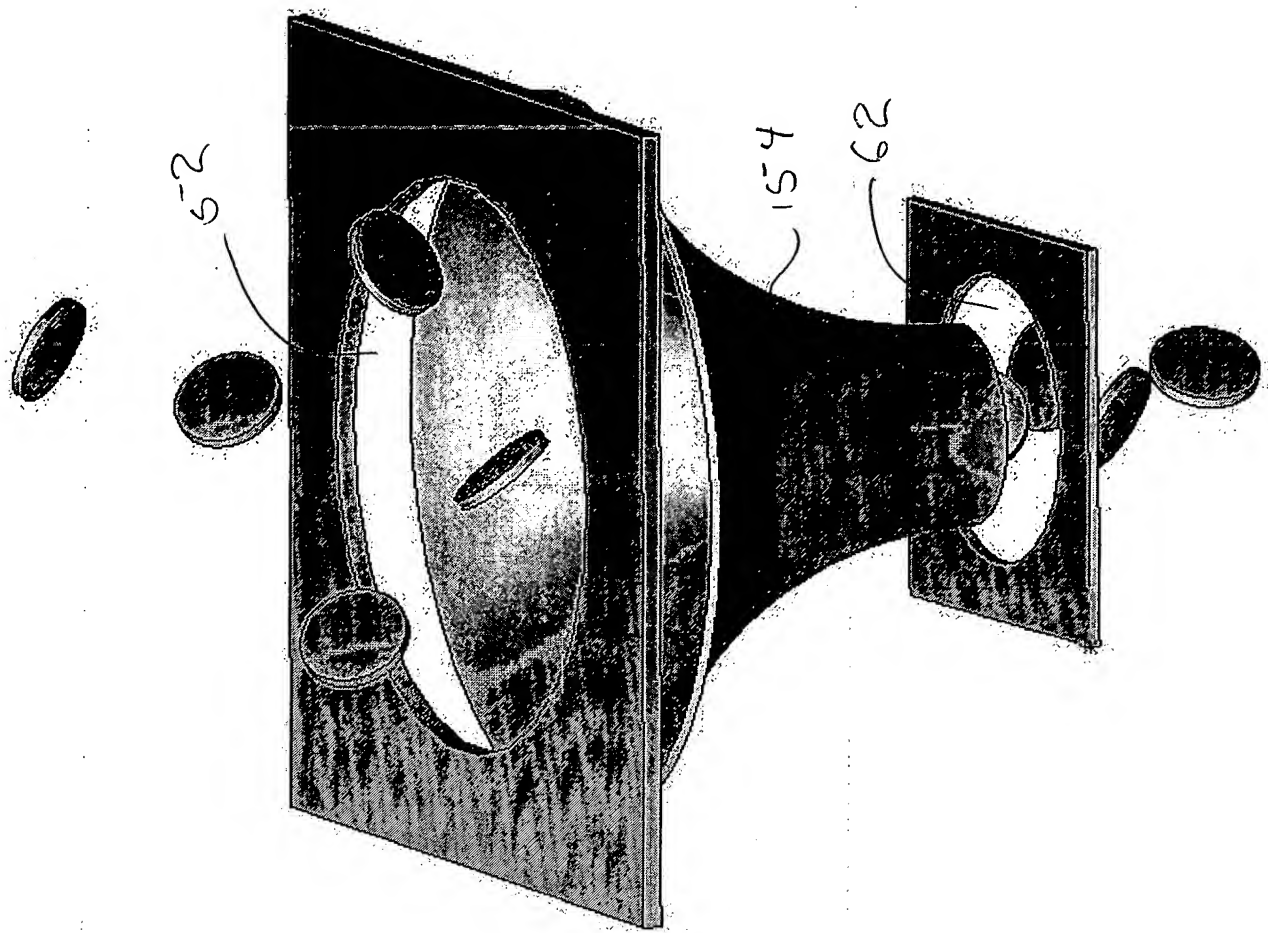


FIG. 14B

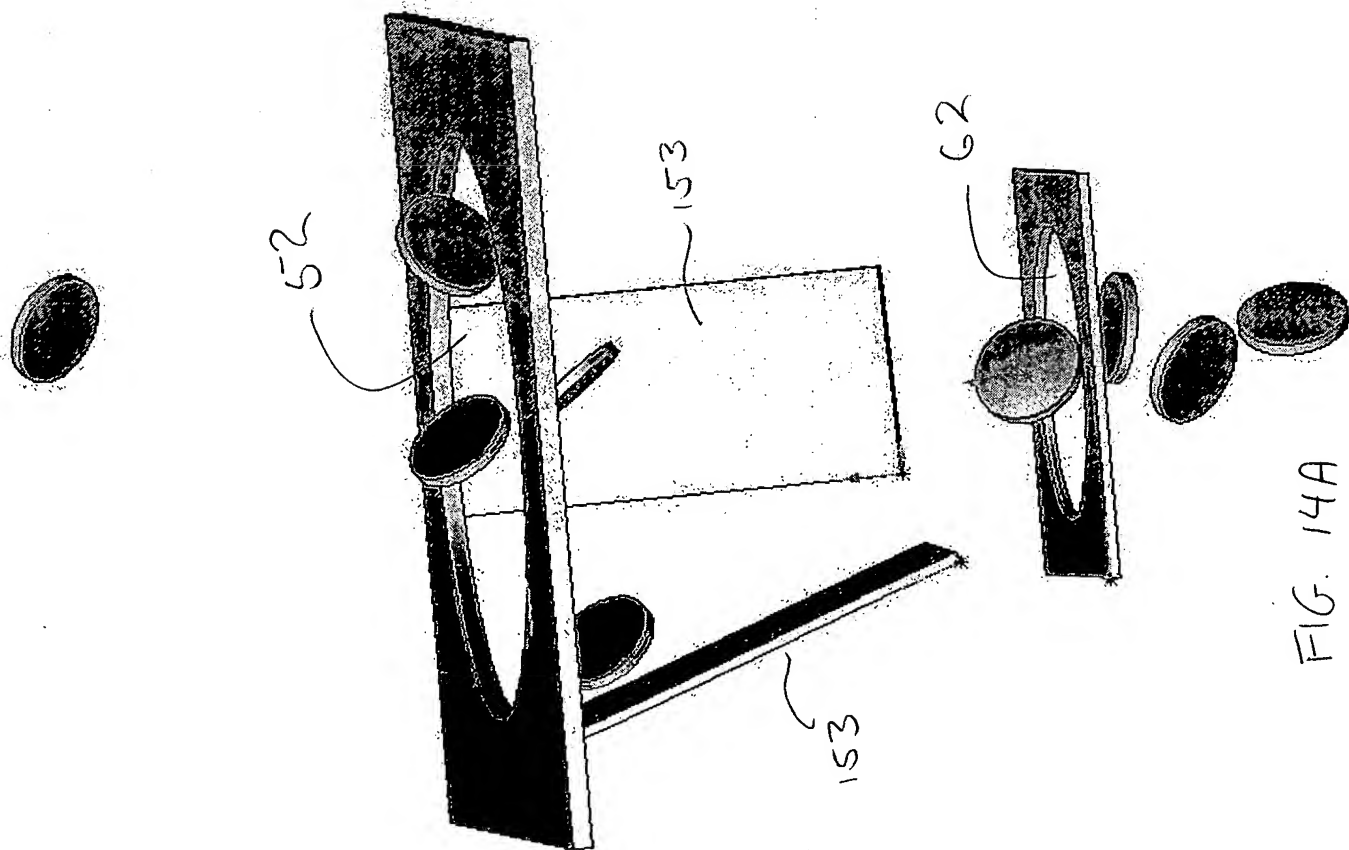


FIG. 14A

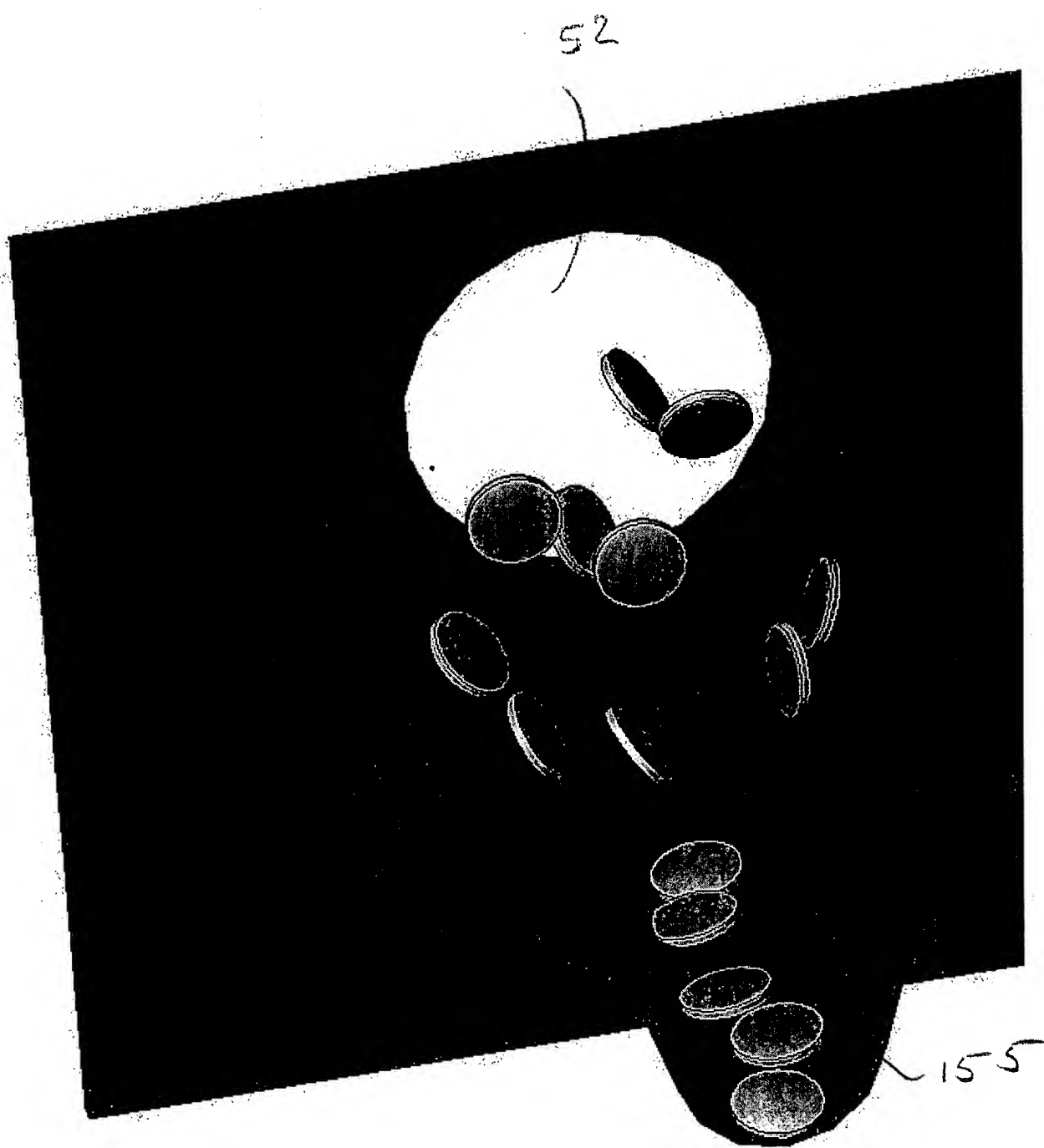


FIG. 14C

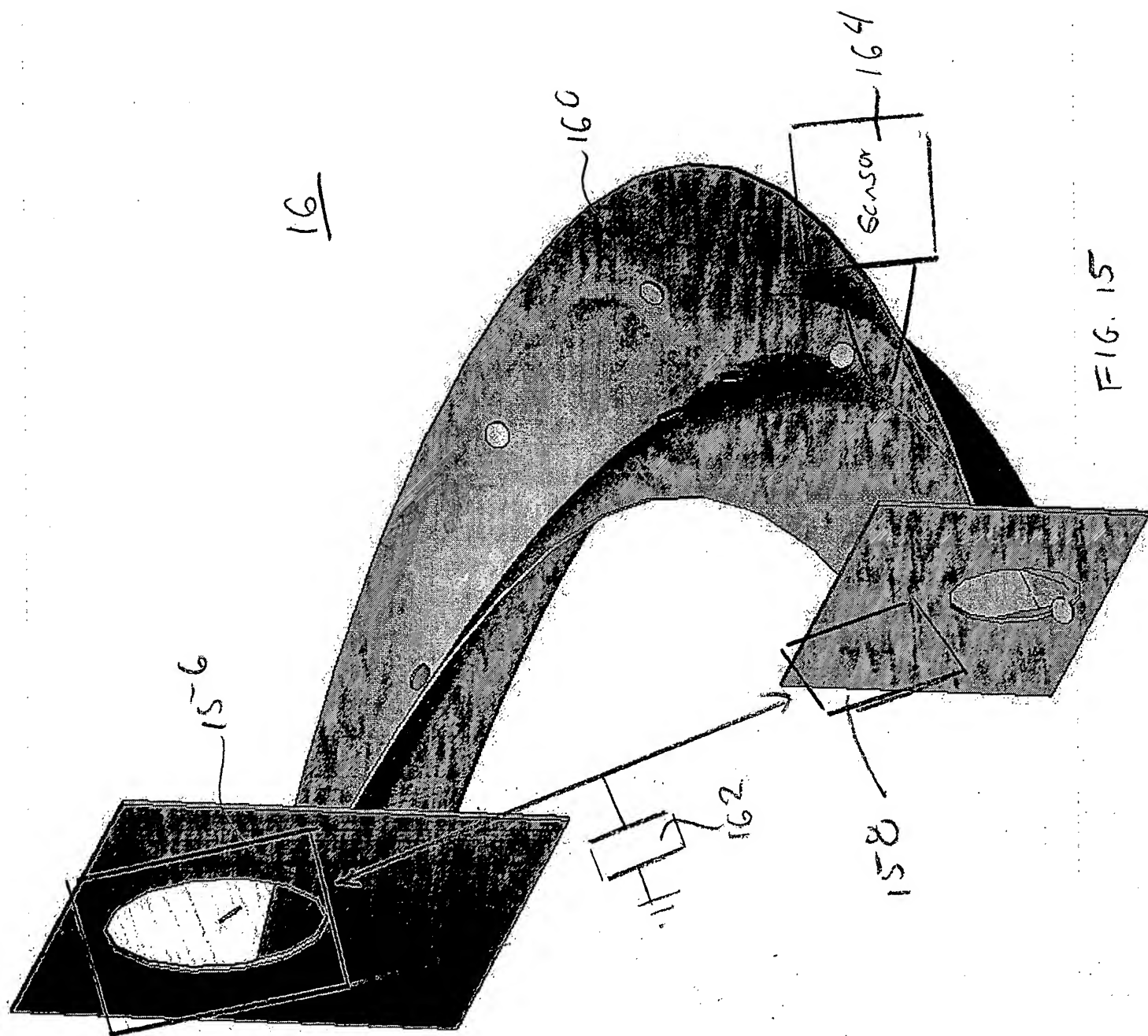


FIG. 15

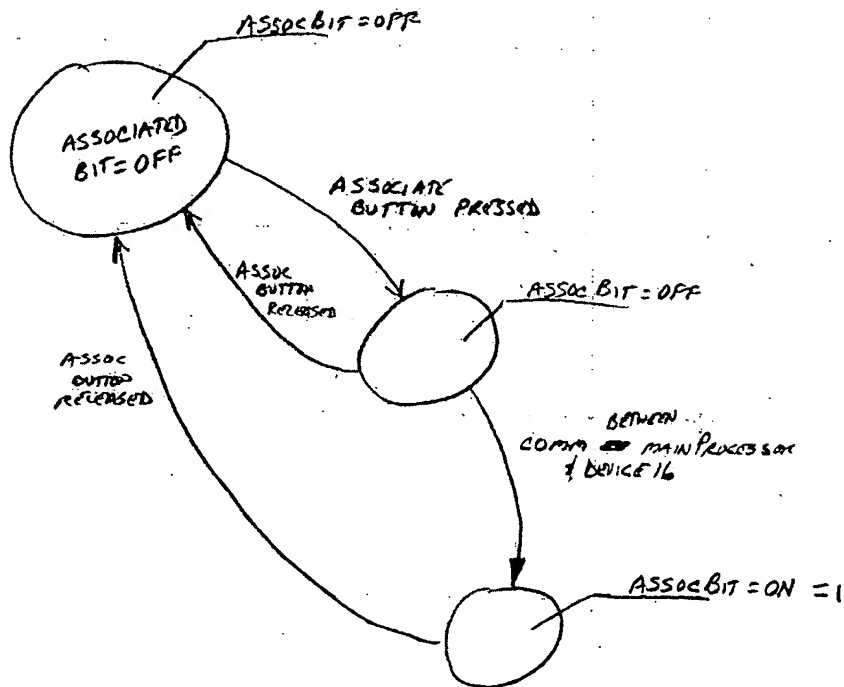
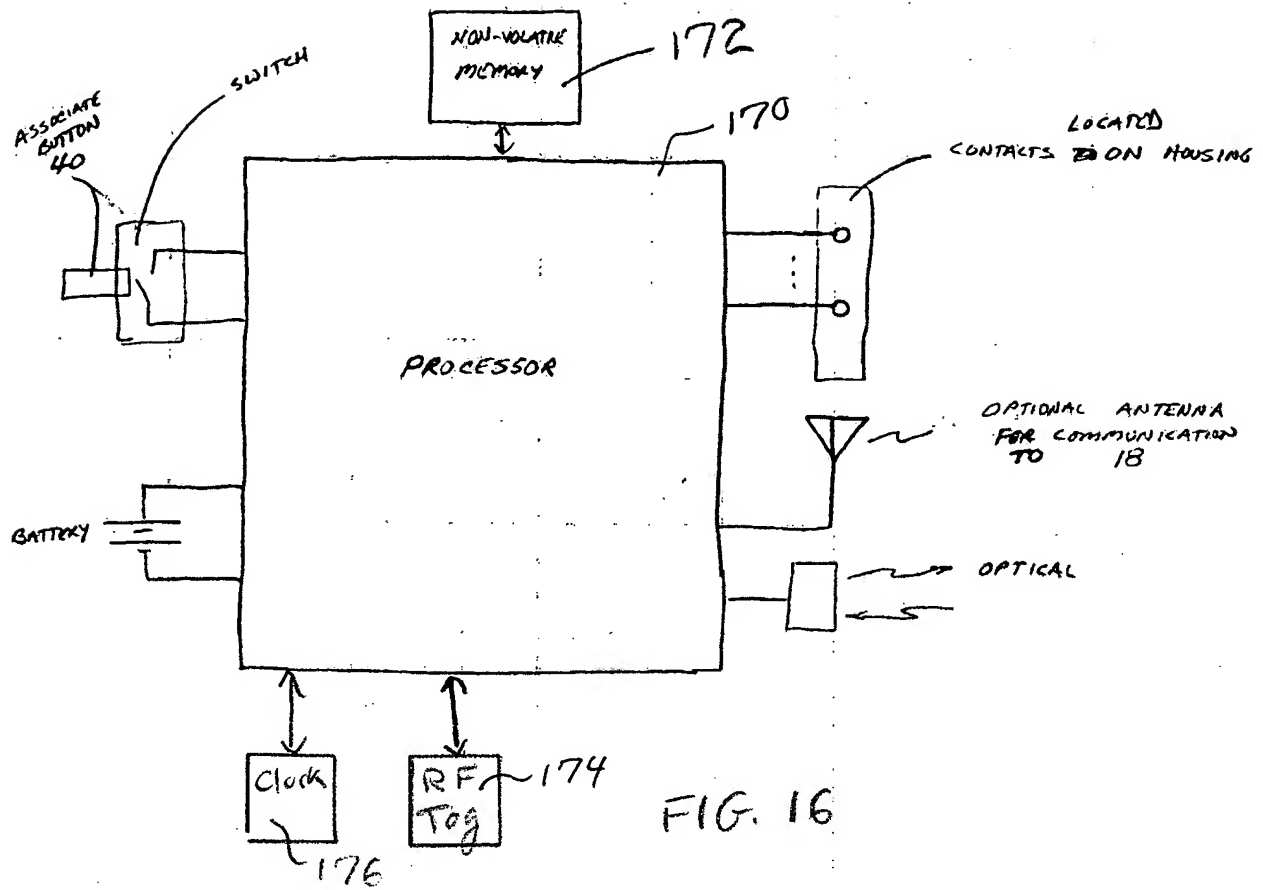


FIG. 17

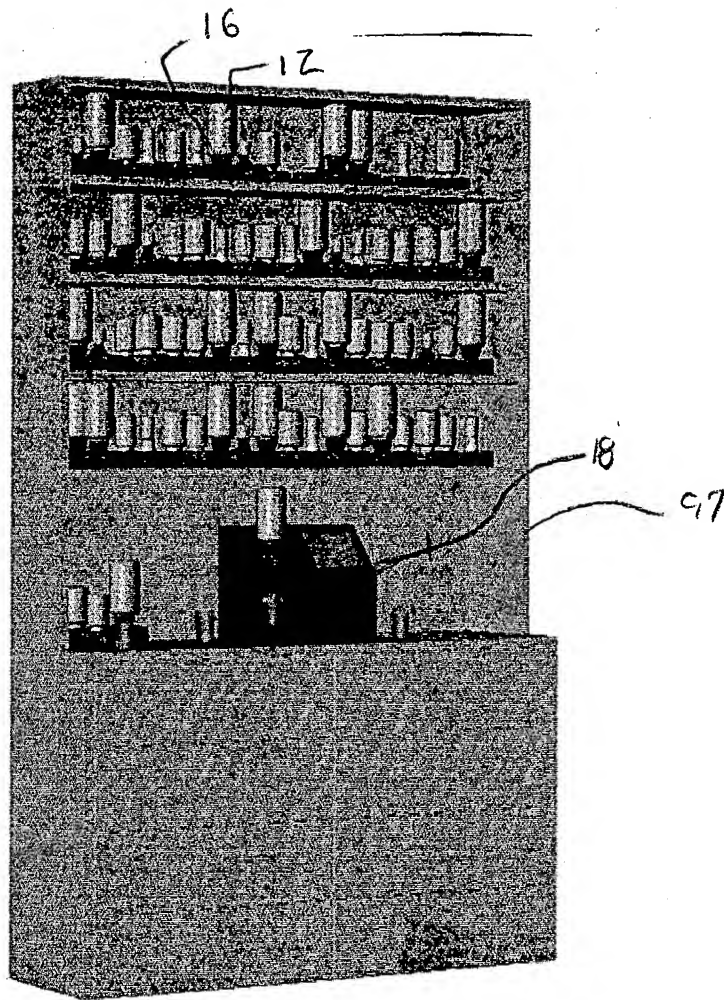


FIG. 18

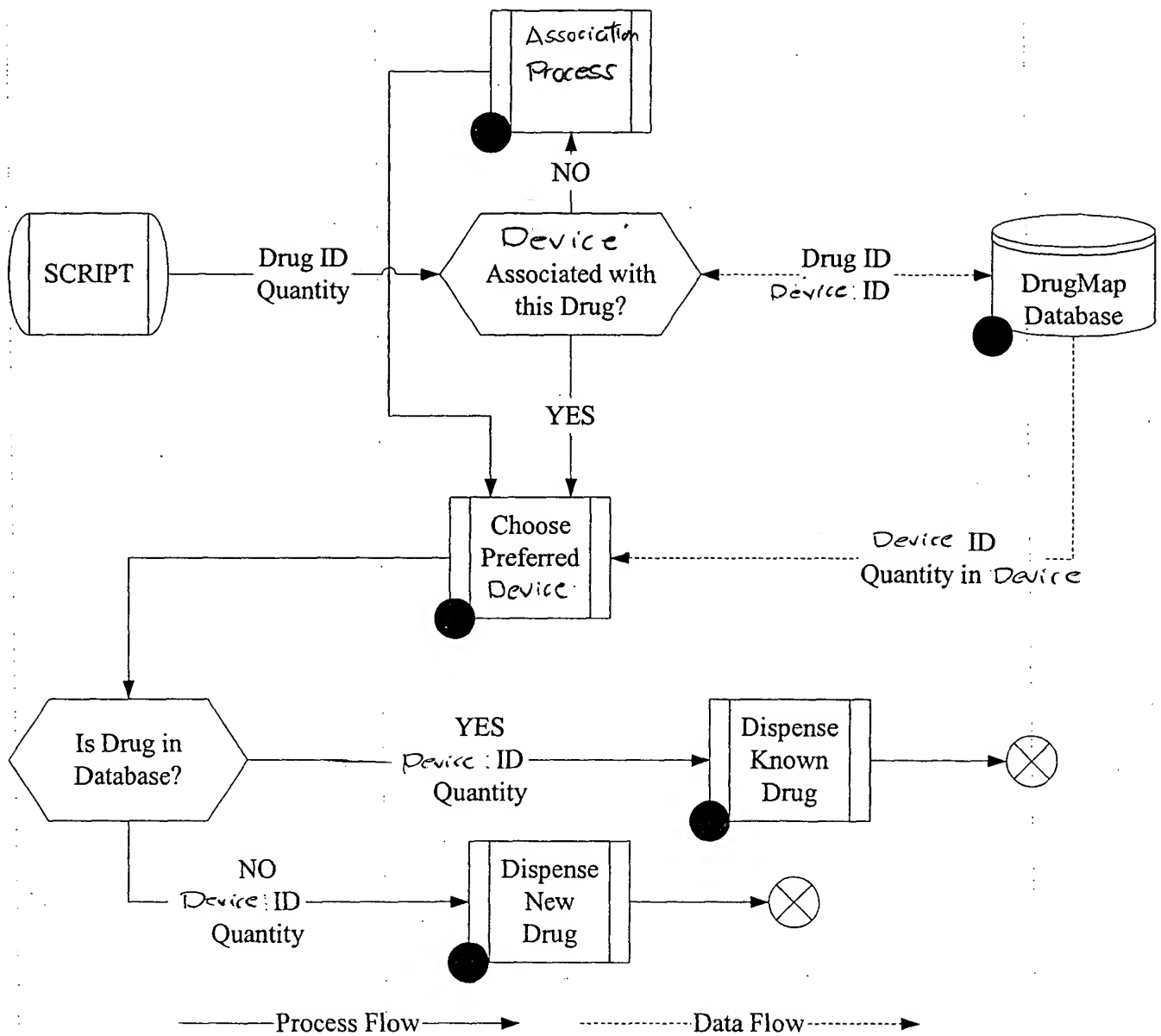


FIG. 18A

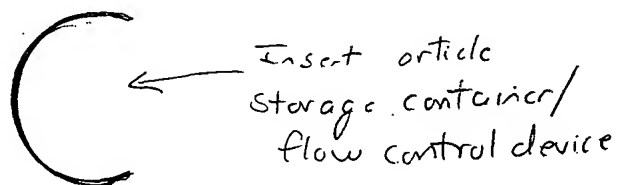


FIG. 19

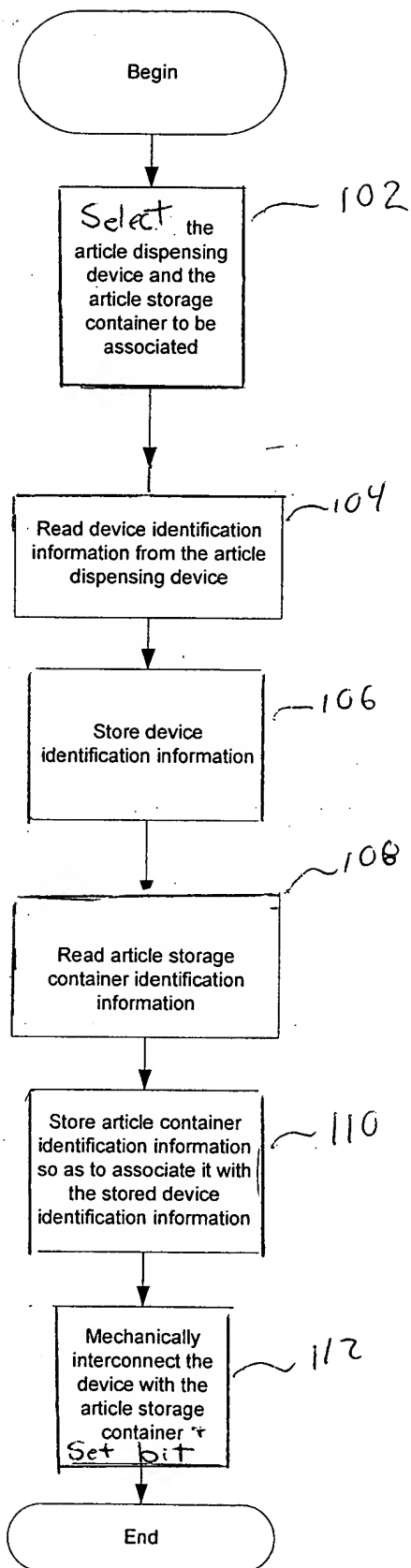


FIG. 20

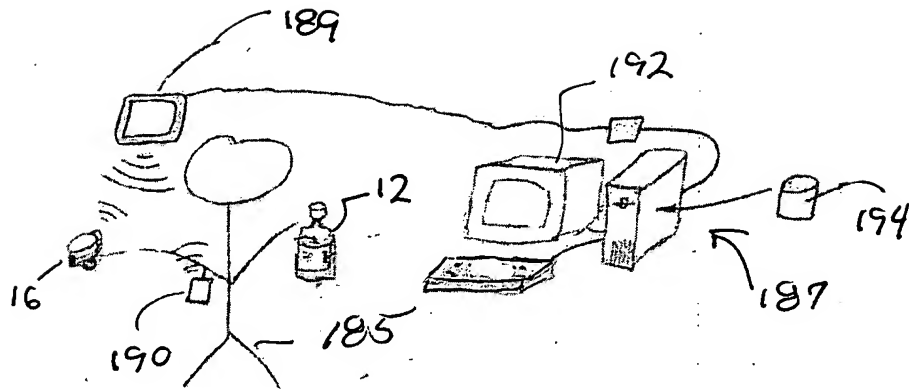


FIG. 21

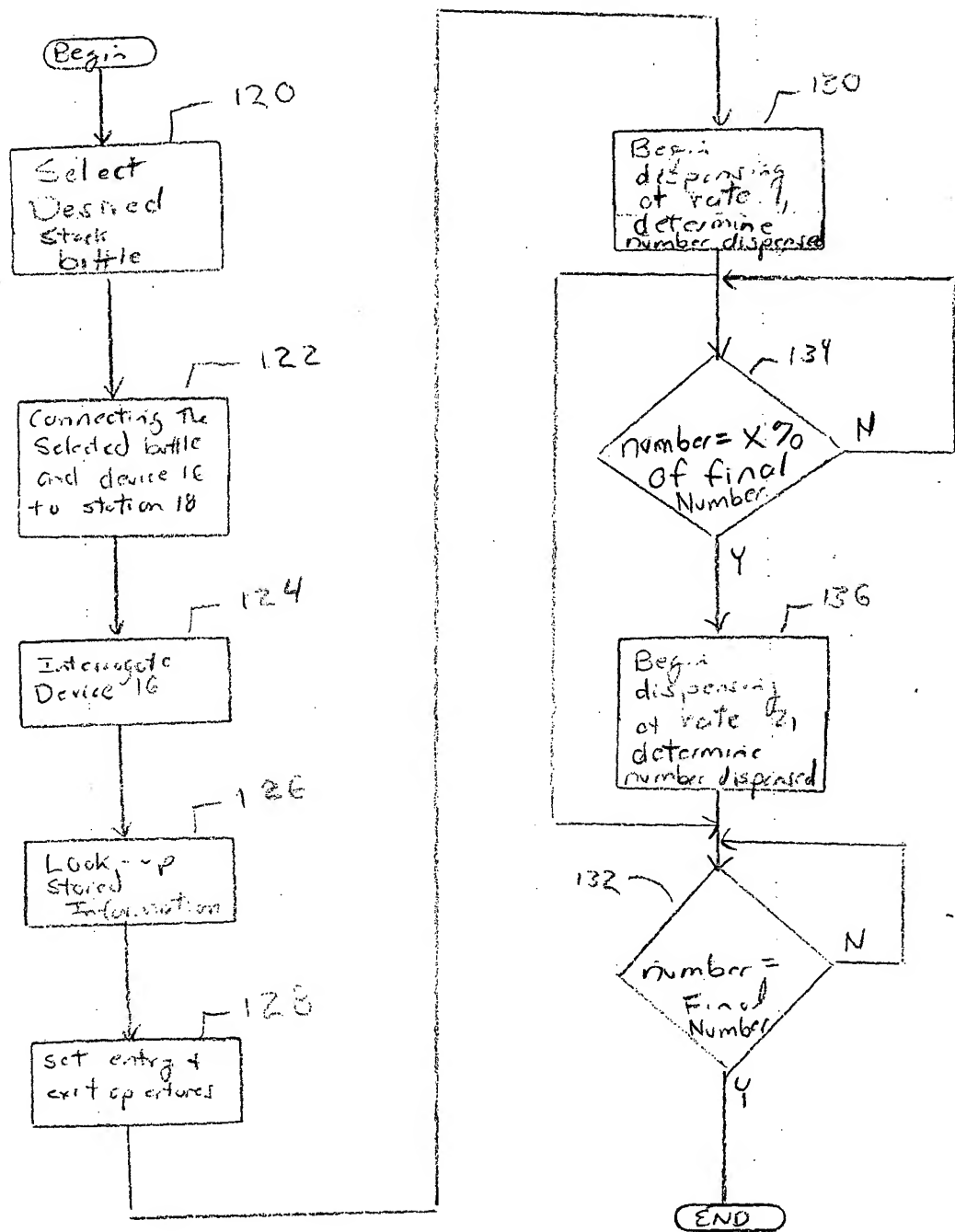
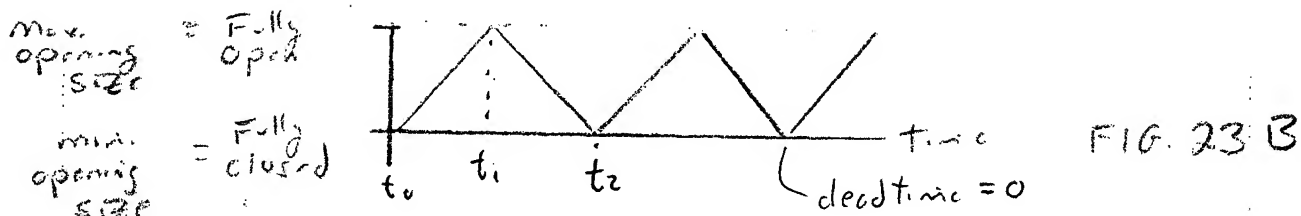
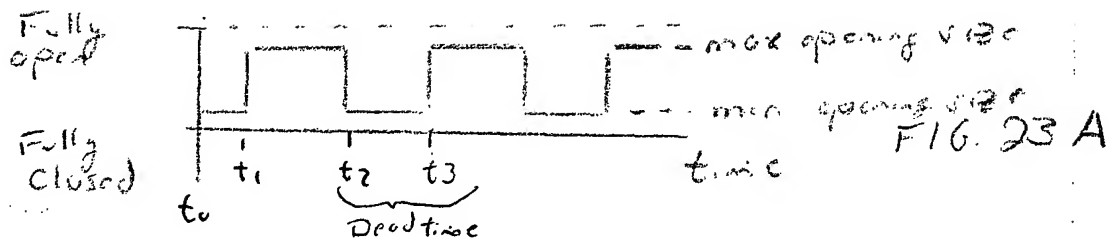


FIG. 22



SPY Feed Tester			
Top Shutter		Bottom Shutter	
Fine	Bulk (x)	Fine (x)	Bulk
This mode defines a 'Cycle' as:		This mode defines a 'Cycle' as:	
Beginning with a		Beginning with a	
Small Opening of:	0.1 inch	Small Opening of:	0.05 inch
Growing to a		Growing to a	
Large Opening of:	0.5 inch	Large Opening of:	0.25 inch
With a		With a	
Cycle Rate of:	10.0 cps	Cycle Rate of:	23 cps
Using a		Using a	
Squariness of:	1.0 range [0..1]	Squariness of:	0.00 range [0..1]
0.0 in	1.0 in	Apply	Stop
Calibrate	Soft Home	Stop Both	Save Settings
		Un-Reset	Restore Settings
		List Settings	Test Motor
			Exit

FIG. 24

Calibrator

Top Shutter

Jog Positive **100** Jog Negative
Jog Counts

Home 0.0 in

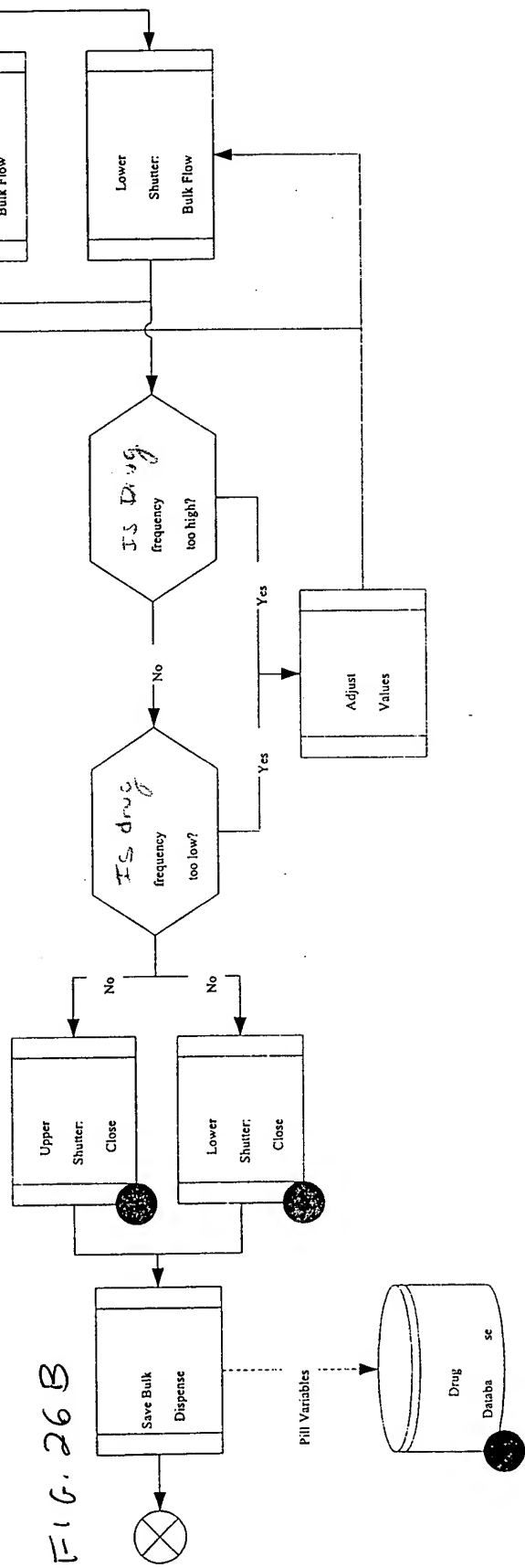
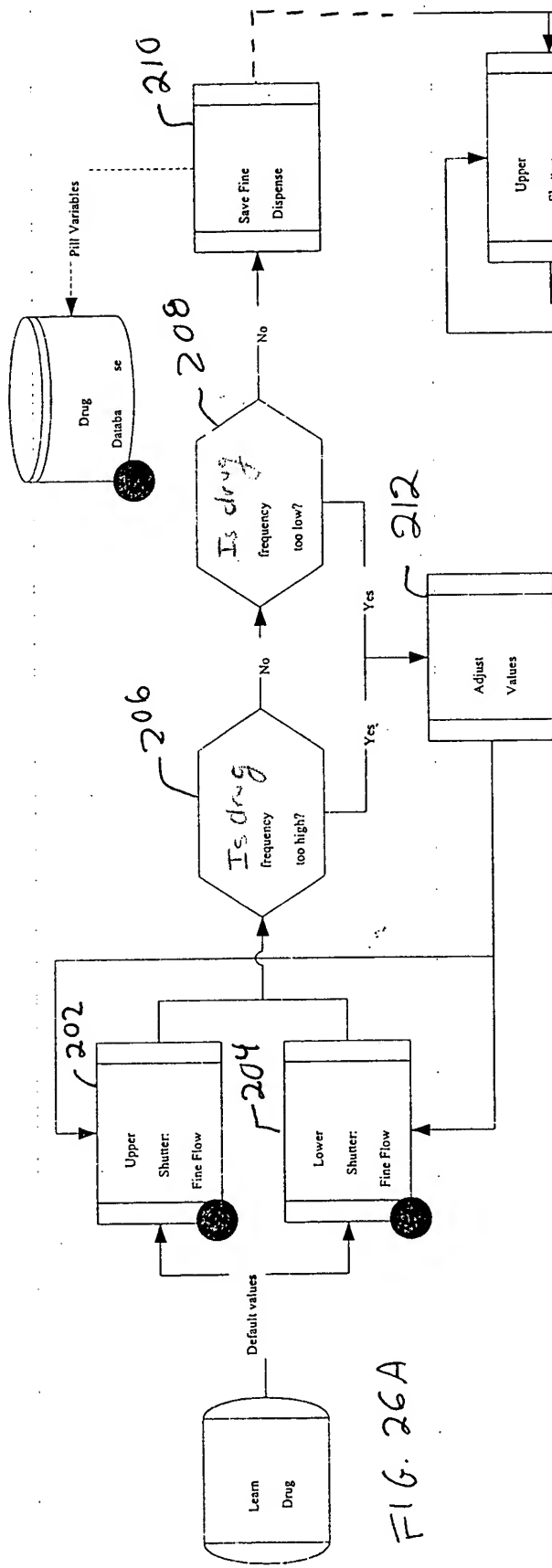
Bottom Shutter

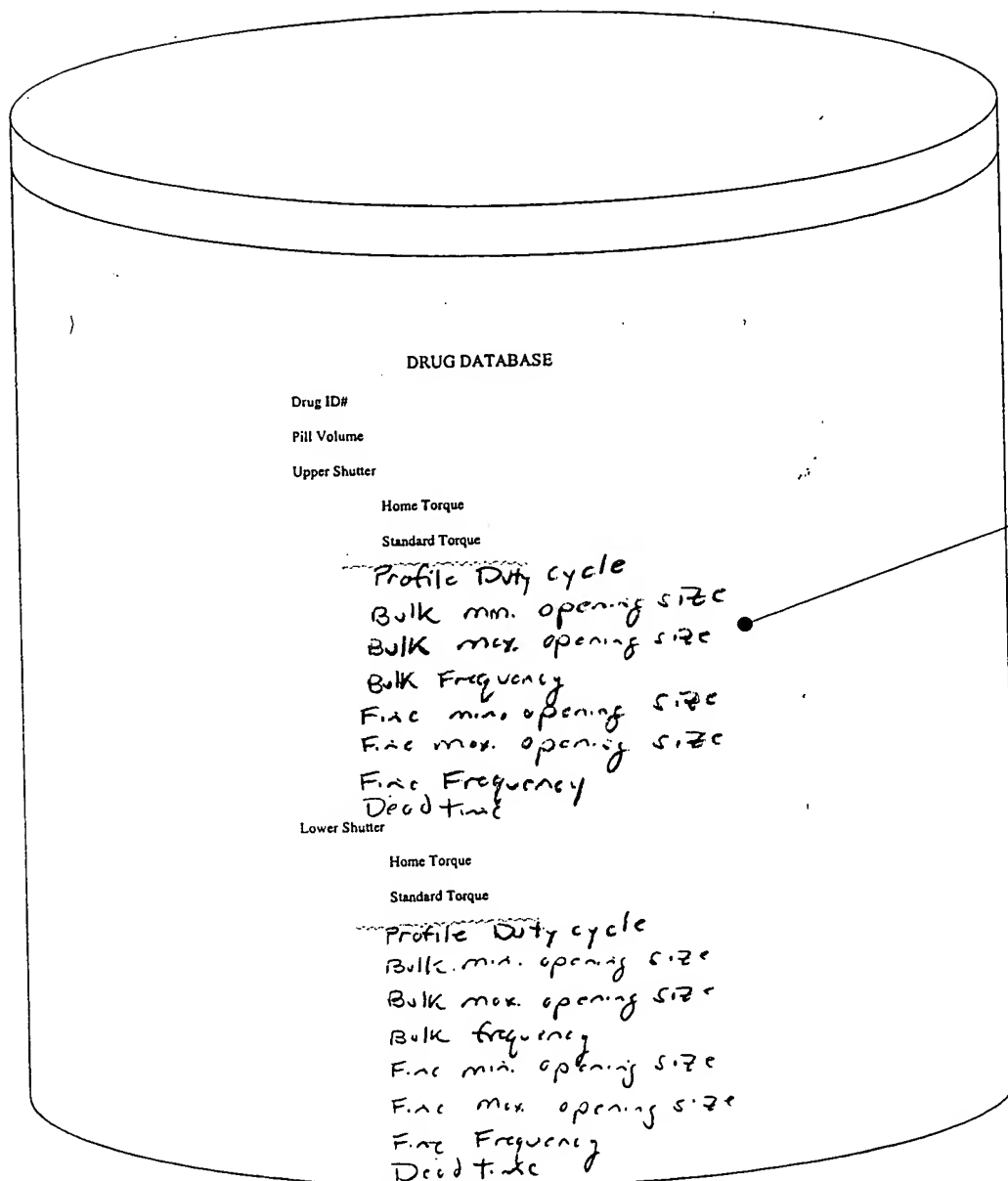
Jog Positive **123** Jog Negative
Jog Counts

Home 0.0 in

Done

FIG. 25





With testing, many of these variables may be eliminated. Consistent relations between variables for the upper and lower shutters may be realized.

EX: LoSh Home Torque =

$X \cdot (\text{UpSh Home Torque})$

where X would be the same for every pill.

FIG. 27

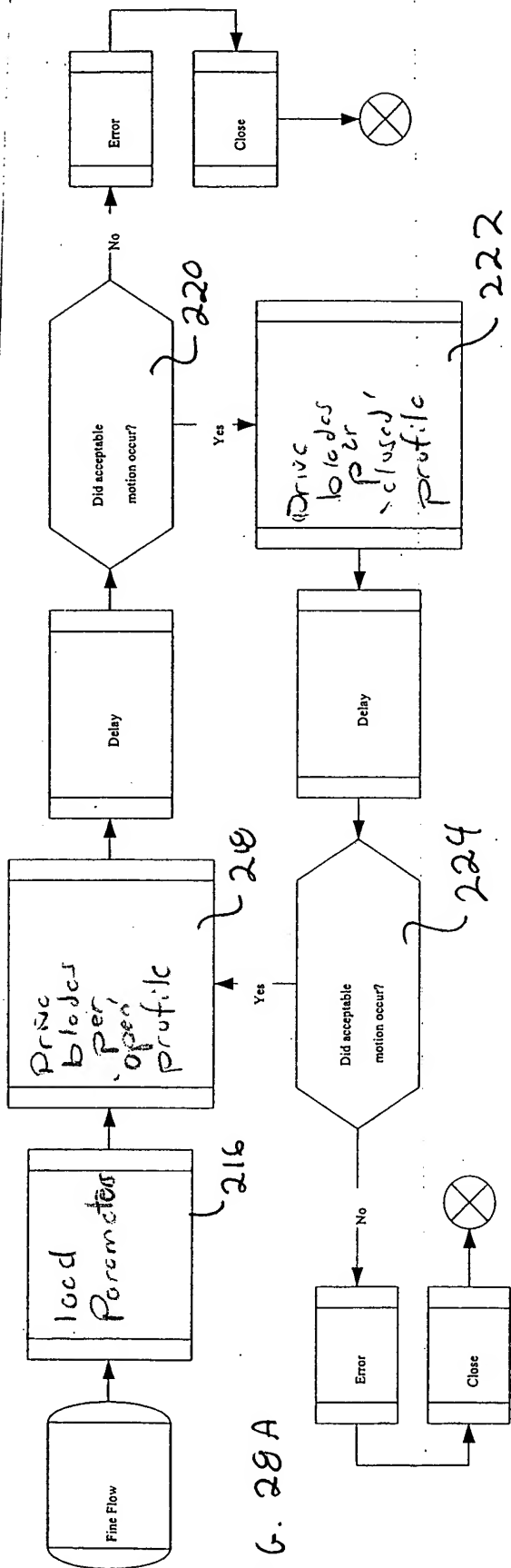


FIG. 28A

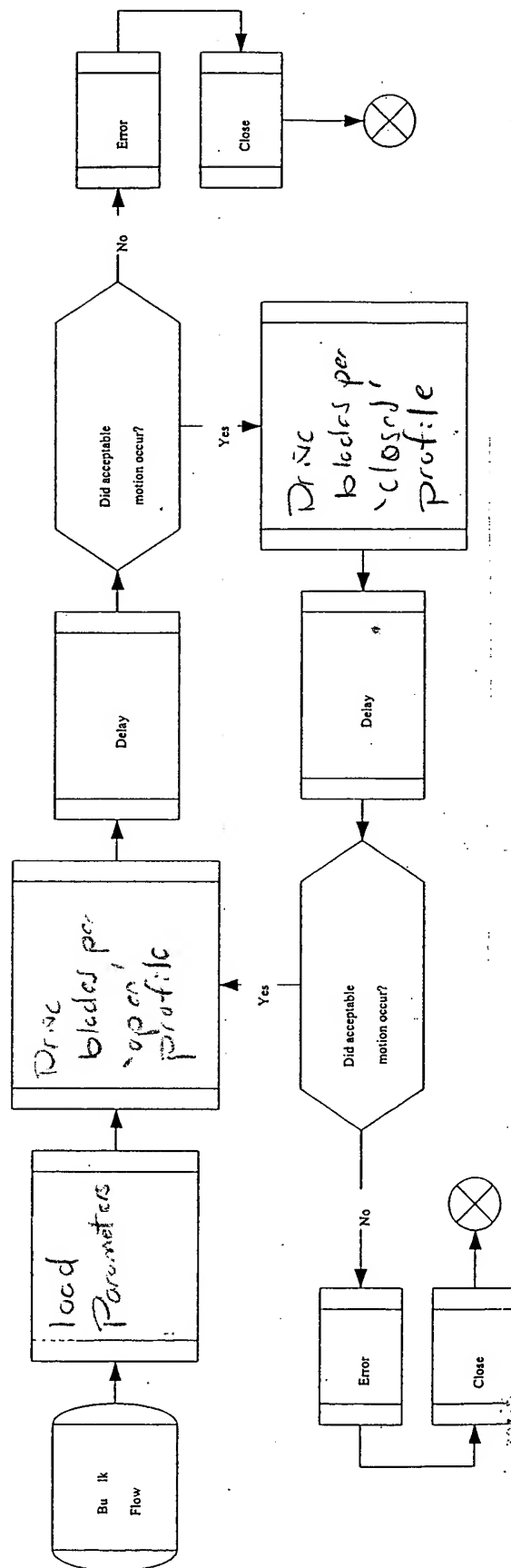


FIG. 28B